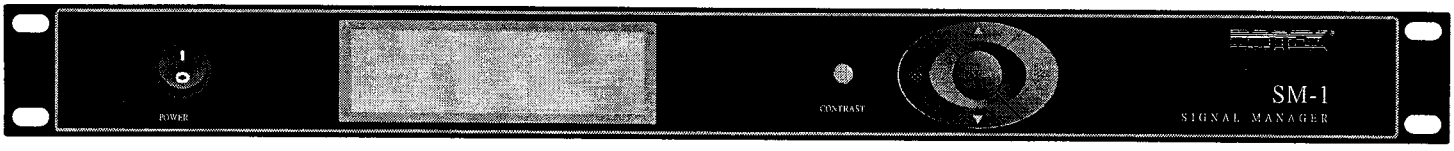
SM - 1

USER'S MANUAL

(Rev1.0 24-004-1084)



General instructions:

To optimize the performance of this product, please read these operating instructions carefully to familiarize yourself with the basic operations of this unit. These instructions contain important safety information regarding the use and maintenance of this unit. Please keep this manual with the unit, for future reference.

Unpacking:

Thank you for purchasing the SM-1 ™ by BOTEX ®. Each unit has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your product for any damage . In the case damage has been found or parts are missing, please contact our toll free customer support number for further instructions. Do not return this unit to your dealer without first contacting customer support.

Introduction:

The unit is part of BOTEX's continuing pursuit for creating high quality affordable intelligent products. The SM-1 is a multi-purpose signal manager, which can make the conversion between DMX channel level and AMX channel level, MIDI Note and DMX channel level, SMPTE frame and DMX channel level. For assigning the channel, Note and frame it is allowed to free select the match type, channel concerning to channel, channel to Note, frame to channel or other cross match.

Caution!

There are no user serviceable parts inside this unit. Do not attempt any repairs yourself, doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact your nearest BOTEX's dealer.

Warnings!

- This unit must be earthed.
- Be sure that the local power outlet match that of the required voltage for your unit.
- To reduce the risk of electrical shock or fire, do not expose this unit rain or moisture.

- Do not spill water or other liquids into or on to your unit.
- Do not attempt to operate this unit if the power cord has been frayed or broken. Do not attempt to remove or break off the ground prong from the electrical cord. This prong is used to reduce the risk of electrical shock and fire in case of an internal short.
- Disconnect from main power before making any type of connection.
- Do not remove the cover under any conditions. There are no user serviceable parts inside.
- Never operate this unit when it's cover is removed.
- Do not attempt to operate this unit, if it becomes damaged.
- During long periods of non-use, disconnect the unit.s main power.

Front Panel

1. Power Switch

   Uses this switch to turn the power supply on/off.

2. LCD Window

   Provides ample menus for your select.

3. Knob

   Using this knob can adjust the contrast of LCD.

4. Keys select

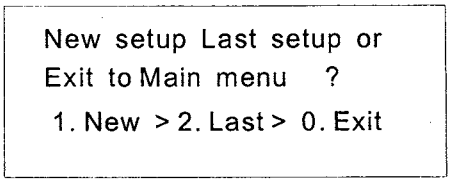
   There are five keys available. The Left/Right keys can move the cursor horizontally and enter/ exit the other menus, while the Up/Down keys can move the cursor vertically and adjust the parameter by increment/decrement of 1. The Enter key is used to confirm your operation and also make an adjustment for the parameter.

Operating Instructions

1. When switching on this unit, the LCD window will show four menus for your application at first page. You can use the down key to scroll to the other page for menus. The two pages can be showed as follows.

MIDI → DMX ---------->	DMX → MIDI ----------> ↑
DMX → MIDI ---------->	DMX → AMX ---------->
DMX → AMX ---------->	AMX → DMX ---------->
AMX → DMX ----------> ↓	SMPTE → DMX ---------->

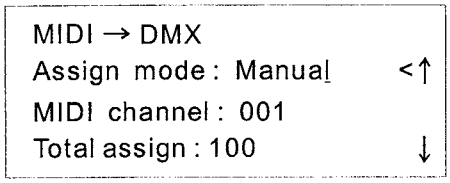
When this unit have stored the data for application, after you enter each of these five menus the LCD window usually shows the same message for next operation. You will be allowed to select the 3 submenus, which can be as follows.

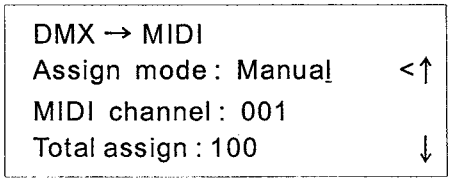


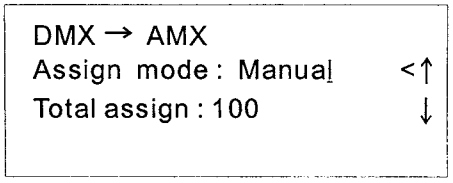
Note: For clearing all the data of this unit, you can hold the Enter key and switch on the SM-1 again. When at the first use of this unit to enter these five referred menus, you will be allowed to set the parameters for assignment directly.

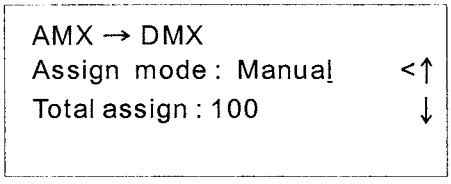
2. *Set parameters for assignment*

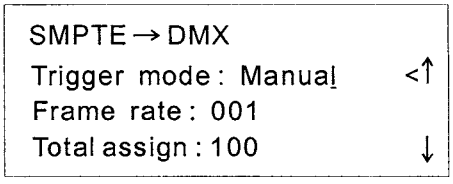
The LCD window will display different messages, according to what you have select the menu for signal conversion. The following five windows concern to the Menus of MIDI --> DMX, DMX--> MIDI, DMX --> AMX, AMX--> DMX, SMPTE --> DMX which you enter.











The Assign mode can be selected between Manual and Auto. The Auto mode means that this unit can assign Channels, which can be respectively linear corresponding to Channel, MIDI Note and Frame. And the assigning sequence can be set automatically. The Manual mode implies that the assigning Channel, MIDI Note and Frame may not be set in a linear relation, you can adjust the Channel, MIDI Note and Frame according to your purpose.

The MIDI channel can be set between 1 and 16 and the Frame rate is only allowed to select 24, 25 and 30. The Total assign means the total matched assignments for signal conversion, with the set value between 12 and 999. If the Assign mode is set to be " Auto ", the Total assign can set to 128 at a maximum for MIDI Note conversion and the Total assign may set up to 192 for AMX signal conversion.

You can use Up/Down keys to locate the desired parameter, then press the Enter key to make an adjustment. Using the Up/Down keys will increase/decrease the parameter value by 1. Press Enter key to confirm what you have adjusted.

Pressing the Up key will allow you to exit from the present window to the previous window. While pressing the Down key can allow you to select other items and assign the Channel, MIDI Note, Frame and other operation.

3. *Signal assignment*

The operation of signal assignment for MIDI --> DMX, DMX --> MIDI, DMX --> AMX, AMX--> DMX, SMPTE --> DMX can be homology. So here is the example for MIDI --> DMX.

You can enter the MIDI --> DMX Menu, then select the New submenu. Scrolling the Down key can allow you to make signal assignment. Each MIDI Note state can be converted the corresponding channel value for DMX signal output. So each Note concerns to the specific channel you have set.

Fig.1

<Ass	Note	DMX CH Vol>
001	001	001---------255
002	002	002---------255
003	003	003---------255

Fig.2

<Ass	Note	DMX CH Vol>
001	001	003---------182
002	002	002---------255
003	003	003---------255

Fig.3

<Ass	Note	DMX CH Vol>
001	002	001---------250
002	003	002---------250
003	004	003---------250

☑ When the Assign mode is set to be Auto, the default setting of this unit is Note 001 to DMX Channel 001, Note 002 to DMX Channel 002, and so on, as the figure 1 shows. In this case, what you can adjust is only the parameter of the first line. If you set the Note to be 002 and Vol to be 250, this unit will following your new setting and make adjustments automatically, Note 002 to DMX Channel 001, Note 003 to DMX Channel 002, Note 004 to DMX Channel 003, and so on. And all the value of each DMX Channel output will be the same value of 250. When the Note 002 is ON, the output value of DMX Channel 001 is 250. However the Note 002 is OFF, the output value of DMX Channel 001 is 0. To check other Note, DMX Channel and value, use Down key for this purpose.

☑ While the Assign mode is set to be Manual, the default setting of this unit is also Note 001 to DMX Channel 001, Note 002 to DMX Channel 002, and so on, as the figure 2 shows. In this case, The parameters concerning to Note, DMX Channel, and value can be adjusted. And other unadjusted parameters will hold the present settings. For example, the figure 2 shows the adjustments as your desire. The Note 001 is relative to DMX Channel 003 and value is set to 182. Others hold the default settings. The Note 001 and Note 003 concern to the same DMX Channel 003. When the present receiving Note is Note 001 and Note 001 is ON , the output value of DMX Channel 003 is 182. But if the Note 001 is OFF, the output value of DMX Channel 003 is 000. While the Note 003 is the present receiving Note and ON, in this case the output value of DMX Channel 003 is 255. However if the Note 003 is OFF, the output value of DMX Channel 003 is 000.

You can also add and delete a line when holding the Left/Right keys about 4 seconds at the data line. For these operation you'd better locate the present cursor to the desired line.

```
Add one setup Del the
setup or Cancel ?
1. Add >  2. Del >  0. Cancel
```

Note : The signal assignments for other Menus can be the same as the MIDI --> DMX Menu.
At the Menu SMPTE --> DMX, the select Auto or Manual for Trigger mode can execute the Add/Delete operation.

4. Monitor the signal state

Here is also the example of the Menu MIDI --> DMX. Reference to the figure 1 to enable the > at the first line. You will be allowed to enter the signal monitor window.

```
< MIDI : Chan  Note  Vol  Sta
          001   001   000  OFF
DMX Ch : 001   $00  $00  $00
     Hex ->    $00  $00  $00
```

The monitor window implies that the MIDI Channel is 1, the volume of Note 1 is 000 and the status of Note 1 is OFF. The output values of Channel 1 ~ 6 are 000. Hex means that all the output values will be display as Hex. You can locate the cursor to the Hex, then press Enter key and use Up/Down keys for other selection--Dec (decimal), Per(percent).

And the sign " –> " notifies that this unit is receiving the MIDI signals, but if this sign disappears , it means that no MIDI signal is receiving. To exit from this LCD window, locate at the < at the first line, then press the Left key.

Note : The signal monitor for other Menus can be the similar the MIDI --> DMX Menu.

Special Notice :

When the trigger mode is set to be Auto at the Menu of SMPTE --> DMX, the following window will appear before assigning the signals.

SMPTE step trigger				>
Trig	Hr	Mi	Se	Fr
001	00	00	00	00

In this case the trigger SMPTE signals will be the data of SMPTE at the signal assignment window, so the number of SMPTE signals must not less than 12. Or you will not be allowed to exit from the present window.

When this unit can not receive the SMPTE signal after entering the signal monitor window, the reset signal of SMPTE will output high voltage.

Specification

Power requirement :	AC 230V ~ 50 Hz, 0.2A Max.
Fuse requirement :	F0.315A 250V 5x20mm
MIDI In/Thru/Out :	5-pin Multi connectors
AMX In/Out :	4-pin female/male XLR connectors
DMX In/Out :	3-pin male/female XLR connectors
SMPTE In :	3-pin female XLR connector
SMPTE RESET :	SMPTE reset signal output port

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